

FINAL DRAFT – April 30, 2009
Request for Economic Stimulus Funds

Concept Proposal

Submitters (Name of Workgroup & Chair/Co-Chairs):

Technology and Networking – Al Lind, Chair

Rural Communities Writing Team - René True, Team Captain,

Project Title:

Broadband – Connecting the Last Mile

Project Partners (Known or Anticipated):

CPE, Kentucky universities and colleges, KCTCS, Kentucky Department of Education, AIKCU, Commonwealth Office of Technology, Kentucky Regional Optical Network, KDE's Office of Education Technology, ConnectKentucky, Department for Local Government, provider associations such as the Kentucky Telephone Association, Kentucky Cable and Telecommunications Association, Kentucky Wireless Association and Kentucky Internet Service Providers Association.

Project Background & Purpose (Justification for Project):

Kentucky has been successful in bringing broadband availability rates up to 95% of the households statewide. However, individual county household coverage rates can vary from lows of 41% and 46% broadband availability in Lee and Breathitt Counties respectfully, to many counties that have 100% coverage. Over 80,000 households in the Commonwealth remain without available broadband service, affectively placing these citizens into a third world technological environment. With existing broadband coverage maps produced from information provided by over 80 broadband providers, Kentucky is uniquely positioned to access federal stimulus funds for broadband infrastructure projects to provide service to unserved (last mile) regions of the state. Updating the mapping process to include broadband speeds and to incorporate improved GIS mapping techniques will help refine the identification of “unserved” areas and to locate areas that are now “underserved”, because of raised broadband speed demand by consumers.

According to a recent report to support Federal investments in broadband infrastructure, The Information Technology & Innovation Foundation reported that every \$10 billion invested in broadband infrastructure translates into 498,000 new or retained jobs in the year in which the

investment occurs.¹ For a broadband investment of \$100 million, the impact could mean 4,980 new or retained jobs in the Commonwealth. Increasing broadband availability in rural Kentucky will result in sustainable economic growth for rural communities, fostering homegrown economic development capacity.

Project Description (General Goals & Implementation Strategies):

The goal is to close the gap for broadband service to Kentucky households by providing an analysis of “unserved” areas of the state, identify “underserved” areas and propose solutions for regional broadband deployment strategies.

Implementation Strategies:

- a. Identify “unserved” areas in which broadband service providers and other entities can deploy in an economically feasible manner, provided some form of public money is made available.
- b. Group Kentucky’s counties with significant “unserved” areas into regional projects suitable for identifying broadband providers willing to invest matching funds necessary to access broadband stimulus funds.
- c. Identify “underserved” areas in which broadband service providers need to invest in capital expenditures to upgrade existing broadband networks to minimum speeds in an economically feasible manner, provided some form of public money is made available.
- d. Coordinate efforts between public and private partners in preparing grant applications for federal broadband funds incorporating demand stimulation applications and content from the postsecondary institutions across the Commonwealth.

This concept paper “Broadband – Connecting the Last Mile” is not a standalone proposal, but rather is complimentary to other concept papers as part of a larger grant initiative. The “Broadband – Connecting the Last Mile” supports and is an extension of the initiatives set forth in the concept paper on “Education – Connecting the Middle Mile”. To maximize impact, this concept paper is also dependent upon demand stimulation efforts as outlined in another concept paper on “Stimulating Broadband Demand to Increase Sustainable Demand”, and is generally supportive of all six of the other concept papers produced by the CPE Technology and Networking Stimulus Work Group.

Project Team (Project Manager(s), Content Experts, Instructional Designers, etc.):

ConnectKentucky/Connected Nation
Commonwealth Office of Technology
Council for Postsecondary Education
Kentucky Regional Optical Network

¹ The Information Technology & Innovation Foundation. January 2009. “The Digital Road to Recovery: A Stimulus Plan to Create Jobs, Boost Productivity and Revitalize America”.
<http://www.itif.org/files/roadtorecovery.pdf> (accessed 4/29/09).

Department for Local Government

Project Budget & Amount of Economic Stimulus Funds Requested:

Detailed wireless assessments were performed on 23 of the 95 counties still without 100% broadband availability. Extending cost estimates for the remaining 72 counties without detailed assessments, indicates the need for over \$50 million dollars to extend broadband service into all 95 Kentucky counties with “unserved” households. Using the wireless assessment cost estimates is not intended to imply that the only solution for unserved areas is fixed-wireless. All broadband solutions will be reviewed for maximum impact based on the existing infrastructure, cost to extend service and broadband speed capabilities for each unserved area. An updated broadband mapping process that includes mapping broadband speeds will identify additional areas of Kentucky with “underserved” low Internet access speeds. Federal stimulus funds can be used to address “underserved” regions through equipment upgrades to existing networks. The 20% match requirements for federal stimulus funds will be part of the contribution from private sector providers that in most cases will retain ownership of the expanded and upgraded networks.

Upgrade broadband mapping process	\$ 300,000
Engineering design “unserved”	2,650,000
Transmit equipment and installation “unserved”	17,000,000
Customer premise equipment (CPE) “unserved”	31,000,000
*Existing network equipment upgrades “underserved”	TBD
** Backhaul connectivity	TBD

Total	<u>\$50,950,000</u>
-------	----------------------------

* The definition for “underserved” is not yet determined by federal agencies administering the broadband stimulus funds, making cost determination impossible at this time.

** Extending networks in some areas of the state will require upgrades to existing backhaul connectivity. Further analysis of existing infrastructure will be required to determine a cost estimate.